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REMARKS

The application has been reviewed in light of the Office Action dated September 13, 2006. Claims 1-12 were pending. By this Amendment, claims 13-15 have been added. Accordingly, claims 1-15 are now pending, with claims 1, 3, 5, 7 and 9-12 being in independent form.

The title of the application was objected to as purportedly not sufficiently descriptive.

The title has been amended to more clearly reflect the subject matter to which the current claims are directed.

Withdrawal of the objection to the title is requested.

Claims 1-12 were rejected under 35 U.S.C. § 103(a) as purportedly unpatentable over Graichen, et al. (US2002/0174383A1) and in view of U.S. Patent No. 7,036,049 to Ali et al.

Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 1, 3, 5, 7 and 9-12 are patentable over the cited art, for at least the following reasons.

This application relates to a network communication terminal apparatus that is adapted to output an indication of an error occurrence which can be recognized by (and is useful to) a user, when one of a plurality of types of errors relating to a network communication operation occurs. Conventional approaches of error notification provide an indication each time an error occurs, or when a predetermined number of errors of a particular error type occur over a predetermined period of time, even if said errors of the particular error type are interleaved with errors of other error types. Such interleaving of different error types can be caused by heavy network usage or traffic, and perhaps may not be evidence of that the network communication terminal apparatus itself is experiencing an error.

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Applicant devised an improved approach wherein a successive occurrence count number is maintained for the type of error that occurred, to count the number of successive occurrences of the type of error, the successive occurrence count number is compared to a predetermined threshold occurrence number of the errors, and the error occurrence indication is output when it is determined from the comparison that the successive occurrence count number is equal to the predetermined threshold occurrence number. Each of independent claims 1, 3, 5, 7 and 9-12 addresses these features, as well as additional features. When an error of one error type of the plurality of types of errors occurs, the successive occurrence count number of said one error type is incremented, and the successive occurrence numbers of remaining ones of the plurality of types of errors are reset.

Graichen, as understood by Applicant, proposes an approach for performing automated predictive reliability (that is, quality over time) of a system, wherein a statistical model is generated based on service data acquired from a data repository, the reliability of the system is predicted based on the statistical model, and alerts are generated when the predicted failures exceed a predetermined criteria.

However, in the system proposed by Graichen, alerts are based on predicted failures and not actual failures.

In addition, contrary to the contention in the Office Action, Graichen neither teaches nor suggests setting and storing a successive occurrence threshold number corresponding to a number of times a type of error is to occur successively before an indication of an error occurrence of the type of error is output, and counting the number of successive occurrences of the type of error.

Graichen, [0015], which is cited in the Office Action, states as follows:

[0015] FIG. 2 shows a top-level component architecture diagram of a predictive reliability system 28 that operates on the computer system 10 shown in FIG. 1.

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Generally, the predictive reliability system 28 predicts the reliability for complex systems that have a plurality of subsystems and a plurality of components within each subsystem. More specifically, the predictive reliability system 28 **predicts and reports future failure rates** for components or groups of components in each subsystem based upon reported service data. The predictive reliability system 28 comprises a run analysis controller component 29 that initiates the analysis for a particular subsystem. Associated with each subsystem is a set of analysis cases, wherein an analysis case is a single data set of service data extracted from a historical database. Generally, the service data includes one or more codes representative of the components that comprise the subsystem, a time limit representative of a threshold for deciding whether to run an analysis case when no new failures have occurred and a set of filters that determines the data set to extract. In this disclosure, the run analysis controller component 29 selects the subsystem that has the earliest analysis run completion date, however, one of ordinary skill in the art will recognize that other criteria can be used to select a subsystem. This approach may be helpful in routinely analyzing complex systems that comprise many subsystems and components in each of the subsystems. For example, if the system had 14 subsystems, then the run analysis controller may run an analysis once every two weeks for a subsystem. This scenario would allow the predictive reliability system to devote a day to each specific subsystem with a subsequent analysis performed every 14 days. The scheduling of running an analysis for a subsystem is flexible and is left to the discretion of the user of the system.

In addition, Graichen, [0025] states as follows:

[0025] An alert generation component 38 generates alerts for the predicted future failures. Generally, the alert generation component 38 evaluates the **results from the simulation** component 34 and determines if the results trigger predetermined flagging criteria. To determine if a predetermined flagging criteria is triggered, the alert generation component 38 compares the mean of the **predicted failures** to a predetermined allocation of **expected failures** set for the component for each time period. Allocations for each component are created by dividing the overall reliability failure rate for the system to each subsystem and then to each component. If the mean of the predicted values exceeds the allocated value by more than a predetermined threshold percent, then the alert generation component 38 shall generate a flag. Note that the threshold percent may be positive or negative. A negative value indicates that the predicted failure is better than or less than the allocation of expected failures. For example, a threshold percent of 10% would indicate that the selected data set failure should be 10% better (i.e., less) than the allocated value. At the completion of comparing the data, the alert generation component 38 can send an email notification to a user or user group listing the components that have generated flags as well as links to the reports that provide more details explaining the alerts.

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Thus, Graichen proposes comparing the mean of the predicted failures to a predetermined number of expected failures for a time period. Graichen proposes running a new predictive analysis when a new failure has not occurred within a preset time period.

Graichen does not teach or suggest, however, handling of actual failures. Moreover, Graichen neither teaches nor suggests counting the number of successive occurrences of a type of error. Graichen is simply not relevant to the subject matter of the claims of the present application.

Ali, as understood by Applicant, proposes an approach for tracking an error condition detectable in a communication network, by collecting statistics from the communication network. Ali proposes maintaining statistics for different types of errors.

However, Ali, like Graichen, fails to teach or suggest counting the number of successive occurrences of a type of error.

Applicant simply does not find teaching or suggestion in the cited art, however, of setting and storing a successive occurrence threshold number corresponding to a number of times a type of error is to occur successively before an indication of an error occurrence of the type of error is output, and counting the number of successive occurrences of the type of error, as provided by the subject matter of claim 1 of the present application.

Independent claims 3, 5, 7 and 9-12 are patentably distinct from the cited art for at least similar reasons.

Accordingly, for at least the above-stated reasons, Applicant respectfully submits that independent claims 1, 3, 5, 7 and 9-12, and the claims depending therefrom, are patentable over the cited art.

In view of the remarks hereinabove, Applicant submits that the application is now in

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condition for allowance, and earnestly solicits the allowance of the application.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition. The Patent Office is hereby authorized to charge any fees that may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Respectfully submitted,


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